

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-16 (Canceled).

Claim 17 (Currently Amended): A method for concentrating particles, comprising:

a) placing the particles close to and/or on at least one waveguide of a support;

~~b) injecting light radiation into the waveguide, the injecting causing grouping of particles into one or plural clusters on the waveguide; and~~

~~e) concentrating or blocking particles into one or plural stationary clusters~~

b) injecting, into the waveguide, light radiation forming one or more stationary waves produced through at least one diffraction grating, the injecting causing grouping of particles into one or plural clusters on the waveguide and concentrating or blocking particles into one or plural stationary clusters on a same waveguide.

Claim 18 (Previously Presented): A method for concentrating particles according to claim 17, wherein the support includes plural waveguides, and the injecting b) leads to formation of plural clusters distributed on one or plural of the waveguides.

Claims 19-23 (Canceled).

Claim 24 (Previously Presented): A method according to claim 17, wherein the particles are cells or macromolecules or microballs.

Claim 25 (Previously Presented): A method according to claim 17, wherein the particles are glass balls and/or gold balls.

Claim 26 (Previously Presented): A method according to claim 17, wherein the radiation is in a spectral range between near ultraviolet and infrared.

Claim 27 (Previously Presented): A method according to claim 26, wherein the radiation is in a range between visible red and infrared.

Claim 28 (Previously Presented): A method according to claim 17, wherein the particles are immersed in a liquid.

Claim 29 (Previously Presented): A method according to claim 29, wherein the liquid is water.

Claim 30 (Previously Presented): A method according to claim 17, further comprising stopping injecting the light radiation as soon as a cluster is formed.

Claims 31-32 (Canceled).

Claim 33 (New): A method for concentrating particles, comprising:

a) placing the particles close to and/or on at least one waveguide of a support, the waveguide forming at least one optical loop; and

b) injecting light radiation into the waveguide, the light radiation forming one or more stationary waves, the injecting causing grouping of particles into one or plural clusters on the waveguide and concentrating or blocking particles into one or plural stationary clusters.

Claim 34 (New): A method according to claim 33, wherein the particles are cells or macromolecules or microballs.

Claim 35 (New): A method according to claim 33, wherein the particles are glass balls and/or gold balls.

Claim 36 (New): A method for concentrating particles, comprising:

a) placing the particles close to and/or on at least one waveguide of a support, the waveguide forming at least one optical loop, the waveguides being joined together in at least one concentration point; and

b) injecting light radiation into the waveguide, the injecting causing grouping of particles into a single cluster located on the concentration point and concentrating or blocking particles into one or plural stationary clusters.

Claim 37 (New): A method according to claim 36, wherein the particles are cells or macromolecules or microballs.

Claim 38 (New): A method according to claim 36, wherein the particles are glass balls and/or gold balls.

Claim 39 (New): A method according to claim 36, further comprising stopping injecting the light radiation as soon as a cluster is formed.

Claim 40 (New): A method for concentrating particles, comprising:

- a) marking particles to modify their optical index and placing the particles close to and/or on at least one waveguide of a support;
- b) injecting light radiation into the waveguide, the injecting causing grouping of particles into one or plural clusters on the waveguide; and
- c) concentrating or blocking particles into one or plural stationary clusters.

Claim 41 (New): A method according to claim 40, wherein the particles are cells or macromolecules or microballs.

Claim 42 (New): A method according to claim 40, wherein the particles are glass balls and/or gold balls.

Claim 43 (New): A method according to claim 40, further comprising stopping injecting the light radiation as soon as a cluster is formed.